

Making Work Safer for America's Miners

The Supplementary Mine Improvement and New Emergency Response Act of 2007

Despite progress over the last several decades, mining remains one of the most dangerous occupations in the U.S. Mine safety and health laws enacted by Congress in 1969 and 1977 have not kept pace with changing industry practices. While the MINER Act of 2006 represented a good first step towards improving mine safety, it's clear that more must be done. The S-MINER Act aims to prevent disasters and, in cases where disasters do occur, to improve emergency response. It also aims to reduce long-term health risks facing miners, such as black lung. The S-MINER Act was developed through months of consultation with miners, miners' families and advocates, mining experts, the mining industry and the Department of Labor.

Boosting Disaster Prevention Efforts

The United States continues to witness mining incidents that claim the lives of miners. The first goal of the S-MINER Act is to eliminate known problems that could contribute to such disasters.

Problem: Retreat mining is dangerous and poorly regulated. Retreat mining involves removing the coal pillars originally left in place to hold up the mine roof. It must be performed under a plan specifically designed for the situation so miners will not be hurt as the roof collapses. Crandall Canyon highlighted the risky nature of retreat mining and the poor oversight of retreat mining plans by the Mine Safety and Health Administration.

Solution: The S-MINER Act requires MSHA to more closely review retreat mining plans before approving them and to observe retreat mining operations when they begin to ensure they are being performed in accordance with the plans and that miners are properly trained. Additional review would be required when the mining depth exceeds 1,500 feet.

Problem: Explosion-proof seals are not yet guaranteed. Seals are the walls used to block off an abandoned portion of a mine, where dangerous gases can build up, from the active portion. Until last year, seals only had to withstand pressures of up to 20 pounds per square inch (psi). After the Sago and Darby disasters, however, the National Institute for Occupational Safety and Health determined that seals should be able to withstand pressures of 240psi. In lieu of this, the pressures behind seals should be regularly monitored so that, if necessary, miners can be evacuated. MSHA has established interim rules that meet the NIOSH recommendations. Existing seals would have to be rebuilt or monitored just like new seals. The rules remain under review, however, and could be rendered weaker than the NIOSH recommendations.

Solution: The S-MINER Act sets the NIOSH minimum standards into law. It extends these standards to underground metal and nonmetal mines, which face similar risks.

Problem: Stoppings are not explosion-proof. To get air to miners working underground, giant fans blow air through a set of passageways designed for that purpose. The walls of these passageways, known as "stoppings," used to be constructed of solid concrete block cemented together, but in recent years walls have been constructed of hollow block, without cement, or using weaker substitutes.

Solution: In general, the S-MINER Act would require stoppings to be constructed in solid cement block.

Problem: Mines continue to rely on dangerous conveyor belt technology.

Conveyor belts are used to carry materials out of the mine. Friction on the belts can create sparks; the belts themselves can then catch on fire, generating smoke and toxic fumes in addition to spreading a fire widely. The MINER Act established a task force to examine the problem; it recently reported that a new generation of less risky belts should be installed. The MINER Act did not, however, require MSHA to adopt these recommendations.

Solution: The S-MINER Act requires all new conveyor belts installed in underground mines to use the new technology belts, and limits to 5 years the length of time mine operators can continue to use their supply of old technology belts. These requirements would apply to both underground coal and underground metal and nonmetal mines.

Problem: Belt air is used too frequently and with inadequate safeguards. “Belt air” describes the practice in underground coal mines of using the same passageway to bring air to miners and to take coal out of the mine on conveyor belts. A fire on the belt can carry toxic fumes right toward where the miners are working. The MINER Act established a panel to study the matter. The panel recently released a consensus recommendation: belt air can be used if approved on a case-by-case basis and if the mine operator meets certain standards to protect safety. The MINER Act did not, however, require MSHA to adopt these recommendations.

Solution: The S-MINER Act would permit belt air only if -- it is necessary for safety reasons (for example, where digging a new entryway would destabilize the ground); it is approved on a case-by-case basis; and it includes all the protections recommended by the panel.

Problem: Not enough is known about two serious explosion hazards: lightning storms and coal dust. MSHA believes that the ignition source for the explosion at the Sago mine in West Virginia was a lightning strike. Coal dust poses a major explosive hazard, which is controlled in part by diluting it with stone or “rock” dust. New types of mining equipment are believed to be creating finer coal dust particles than do older technologies, and it is not known if current rock dusting rules are sufficient to dilute this finer coal particulate.

Solution: The S-MINER Act requires studies of both hazards.

Problem: Too many mine operators ignore the law. Some large mining companies operate mines through corporate shells that give them the advantage of penalty breaks designed for small companies. MSHA is one of the few agencies that lack subpoena authority to get at the truth. Other mine operators refuse to pay penalties that are overdue because MSHA lacks effective tools to collect them. Many mine operators just treat penalties as a cost of doing business, because the penalties for common violations are not substantial or immediate enough to compel compliance. MSHA lacks the authority to shut down mines that fail to abate violations in a timely way. And the agency has never used its authority to impose heavy fines for a continuing “pattern of violations” by a mine operator.

Solution: The S-MINER Act strengthens MSHA's enforcement hand by:

- ✓ Providing MSHA with subpoena authority;
- ✓ Requiring mine operators that want to contest citations to put their penalties in escrow to ensure they can be collected;
- ✓ Permitting MSHA to stop production in mines that do not pay off delinquent accounts and shut down mines that do not abate violations in a timely way;
- ✓ Increasing certain penalties and modifying the "pattern of violations" authority to make it easier to use.

Problem: Miners' rights have been undermined. Safety and health hazards reported to MSHA by phone have often been ignored in recent years, in part because the function of taking the incoming complaints has been contracted out to individuals not familiar with mining. Whistleblowers report retaliation and blacklisting, and miners and families don't trust MSHA to protect their identities. Those who complain about blacklisting may have to go through the grievance process before their cases can be adjudicated. The families at Crandall Canyon were unable to designate miner representatives because the law only permits miners to do this – even when they are trapped below ground.

Solution: The S-MINER Act creates an office of Miner Ombudsman. The ombudsman would process incoming complaints and assist whistleblowers with their cases. Existing whistleblower protections would also be enhanced. Families of trapped miners could designate miner representatives.

Improving Emergency Response

In the event that disasters do strike, it is critical that MSHA improve its emergency response. The S-MINER Act includes a number of common-sense proposals for better equipping MSHA to respond to emergencies.

Problem: MSHA's authority to control rescue efforts is unclear. MSHA generally makes joint decisions with mine operators because it believes operators will not provide the required drilling equipment, supplies and personnel to assist rescue efforts if it takes over control.

Solution: The S-MINER Act clarifies the law to ensure that when the U.S. Labor Secretary directs a rescue, the operator shall cooperate and comply with requests for resources.

Problem: MSHA's family and press liaison activities need strengthening. The MINER Act requires MSHA to take charge of communicating with families and the public during a rescue to ensure that incorrect and misleading information does not get disseminated. MSHA did not adequately fulfill this new role in the aftermath of the Crandall Canyon disaster.

Solution: The S-MINER Act more clearly defines MSHA's responsibilities and requires full-time positions to be created to carry them out.

Problem: MSHA does not have its own emergency response plan. While the MINER Act requires mines to develop emergency response plans, it did not require the same of MSHA, leading to a continued lack of advance coordination with state and local authorities.

Solution: The S-MINER Act requires MSHA to issue such a plan within six months.

Problem: The law does not provide for independent investigations. Under current law, MSHA is responsible for determining civil or criminal liability in the case of a mining accident and for investigating its own staff's actions. It defies common sense for MSHA to be responsible for investigating itself.

Solution: The S-MINER Act establishes by statute the ground rules for independent accident investigations of multiple-fatality mine accidents. It requires MSHA's cooperation with those investigations.

Problem: Enhanced communication and tracking systems are still not in place. To provide time for wireless communication and tracking technology to be developed, the MINER Act does not require such technology to be installed until at least June 2009. The MINER Act does not include "fill the gap" technology to go in place immediately. It now appears that a purely wireless two-way technology may remain elusive for some time. NIOSH has since developed a plan for the gradual enhancement of existing technology that can provide most of the advantages of a purely wireless system.

Solution: The S-MINER Act requires the coal industry to quickly begin installation of such a "fill the gap" system and to supplement the system as NIOSH develops enhancements.

Problem: Underground refuges are not required under current law. Underground refuge chambers can provide safe haven for trapped miners while they await rescue. Refuges can be stocked with breathable air, food, and water, and they are commercially available and already in use in some states. Such a chamber would likely have saved lives at Sago.

Solution: The S-MINER Act requires underground coal mines to start installing such chambers, or similar refuges dug out of the mine walls, by June 2008. At least one chamber has to be within 500 feet of the working face of the mine.

Problem: The reliability of miners' SCSRs remains a concern. Self-contained self-rescuers (SCSRs) are personal air packs that can provide up to an hour's worth of breathable air. They are used by miners to escape through toxic fumes. However, they have a history of production failure and will not work if not maintained properly.

Solution: The S-MINER Act requires NIOSH and MSHA to randomly sample SCSRs. It requires SCSR manufacturers and mine operators to notify the Labor Secretary whenever a problem with an SCSR is identified.

Reducing Long-Term Health Risks

The threat of a catastrophic incident is not the only kind of threat facing miners. Miners also continue to face long-term health risks from hazards like exposure to coal dust, silica, and asbestos. The S-MINER Act updates outdated standards meant to guard against such health risks.

Problem: Black lung is back. Generations of coal miners have suffered and died from pneumoconiosis, or black lung, a severe and latent lung disease triggered by exposure to coal dust. Protections adopted in 1969 (including a coal dust exposure limit) were supposed to ensure that the next generation of miners would not develop the disease. Unfortunately, in the last few months, NIOSH has confirmed that more miners are coming down with the disease. Mine operators have been convicted of tampering with the instruments used to measure exposure levels. NIOSH recommended an exposure limit half of that in the statute. Under the direction of NIOSH, new technology to better measure coal dust exposure has been developed, but it cannot be utilized for compliance purposes unless the law is changed.

Solution: The S-MINER Act updates the law to permit the new measuring device to be used to determine compliance. It also cuts the exposure limit in half.

Problem: Other health protections have been allowed to slowly erode. Most of the rules protecting miners' health consist simply of "permissible exposure limits" (PELs) that cap the amount of a substance to which a miner may be exposed during a shift. Most of these limits were established decades ago. Over the years, NIOSH has recommended that many of the PELs be reduced to reflect its findings that the current limits do not provide adequate protection against serious diseases, including various cancers. However, MSHA lacks the capability to update each of the PELs through a separate rulemaking.

Solution: The S-MINER Act requires MSHA to upgrade PELs to reflect NIOSH recommendations. The bill would also set a specific new statutory limit on silica exposure.

Problem: This administration has delayed action or rolled back specific health protections. The Bush administration has refused to move forward with a rule to put asbestos exposure standards in the mining industry on a par with other industries. It has also weakened what was previously a uniform set of rules to let workers know of hazards in the products they are using on the job (hazard communication rule).

Solution: The S-MINER Act corrects these problems by statute.